

insufficient to overcome the rejection.

The Examiner asserts that the addition of a compound according to Applicants' formula (A), (B) or (C) is preferred in the secondary references:

- (1) Tanemura (column 11, line 66 - column 12, line 2) discloses that the compounds are preferably added during formation of the core grains, that exclusive use of silver bromide is the most preferred (column 5, lines 4-5), and that tabular grains may be used (column 5, lines 64-68); and
- (2) Shutoo (column 7, lines 42 - 44, column 10, lines 52-54, column 10, lines 58-63) contains a similar disclosure.

The Examiner concludes that since the secondary references teach the combination as preferable, it would have been expected to achieve the improvement in photographic characteristics which is shown by Applicants' Declaration.

B. Applicants' Response

Applicants' invention is an internal latent image direct positive photographic silver halide emulsion. It comprises tabular silver halide grains having,

- (1) an average grain diameter of not less than 0.3 μm , and
- (2) an aspect ratio of from not less than 2 to not more than 100 in an amount of not less than 50% of all silver halide grains as calculated in terms of area.

The tabular silver halide grains are core/shell grains which have a core and an external shell. The average grain thickness "a" along the main plane of the external shell thereof is from not less

than 0.2 μm to not more than 1.5 μm , and the average grain thickness "b" perpendicular to the main plane of the external shell thereof is from not less than 0.04 μm to not more than 0.30 μm .

Significantly, the core of the core/shell grains is composed of silver bromide and subjected to chemical sensitization in the presence of at least one compound represented by formula (A), (B) or (C) in combination with a gold sensitizer. Substantially no thiosulfate ion is present when this chemical sensitization occurs.

Applicants respectfully traverse the rejection because neither Tanemura or Shuto discloses or suggests the decreasing effect of negative sensitivity at high illumination intensities which is unexpectedly obtained with Applicants' presently claimed invention.

Direct positive image is conducted by exposing an internal latent image direct positive silver halide emulsion, (the grain surfaces of which have been subjected to chemical sensitization), to light in a proper amount, and then subjecting it to surface development.

However, a so-called "high illumination negative image," in addition to the direct positive image, is obtained by exposing the internal latent image direct positive silver halide emulsion (the grain surface of which was properly subjected to chemical sensitization) at the high illumination intensity (for example, exposure with flash lamp), followed by surface development. The high illumination negative image diminishes the image quality of the direct positive image. Accordingly, it is important to

restrain this negative sensitivity at high illumination intensity to a point as low as possible.

Unfortunately, the appearance of a high illumination negative image is remarkable in tabular silver halide emulsion for use in the present invention as compared with regular crystal silver halide emulsions, such as the octahedral silver halide emulsion which are disclosed in the working examples in Tanemura and Shuto. Accordingly, in the emulsions of Tanemura or Shuto, the appearance of high illumination negative image does not raise a serious problem.

With respect to the restraining effect of negative sensitivity at high illumination intensity resulting from the addition of compounds represented by formula (A), (B) or (C) in the present invention (in combination with a gold compound), the tabular grains for use in the present invention are larger than the grains of regular crystal silver halide emulsions such as octahedral silver halide emulsions in Tanemura and Shuto.

The silver bromide core/shell emulsions of the present invention have a higher restraining effect of high illumination negative image, than that of silver iodobromide core/shell emulsions disclosed in Evans, when the compounds represented by formula (A), (B) or (C) for use in the present invention are added. This conclusion is clear when one compares the results of negative sensitivity (a sensitivity at an exposure time of 10^{-4} second) shown in Table 3 as a comparative test in the Declaration filed March 4,

1998. That is, the silver halide emulsion (having a silver bromide core) for use in the present invention is remarkably low in negative sensitivity as compared with the comparative emulsions (having a iodobromide core), and the high illumination negative image is difficult to appear with the silver halide emulsions for use in Applicants' presently claimed invention.

Applicants wish to emphasize that the octahedral silver halide emulsion which are disclosed in the working examples in Tanemura and Shuto do not suffer from the appearance of high illumination negative image, the problem addressed by the present invention. Applicants therefore question whether one skilled in the art would be motivated to modify the photographic materials of Evans in the manner proposed in the Office Action to obtain Applicants' claimed invention.

Applicants therefore submit that their invention would not be obvious over the cited references and therefore ask that the prior art rejection be reconsidered and withdrawn.

II. Conclusion

In light of the above, Applicants believe that their application is now in condition for allowance and therefore request favorable consideration.

Applicants hereby petition for any extension of time which may be required to maintain the pendency of this case, and any required fee for such extension is to be charged to Deposit Account No. 19-4880.

Response under 37 C.F.R. §1.116
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page 6

08/915,683

Respectfully submitted,



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